

FIVE-YEAR REVIEW
Charlevoix Municipal Well Superfund Site
Charlevoix, Michigan

I. Purpose of the Five-Year Review

The United States Environmental Protection Agency (U.S. EPA) has conducted a Five-Year Review of the Remedial Action (RA) which was implemented at the Charlevoix Municipal Well Superfund Site, Charlevoix, Michigan. This review was intended to evaluate whether the RA remains protective of public health and the environment.

Section 121(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Section 300.430(f) (4) (ii) of the National Oil and Hazardous Substance Contingency Plan (NCP), require that periodic (no less often than five years) reviews are to be conducted for sites where hazardous substances, pollutants, or contaminants remain at the site above levels that will not allow for unlimited used or unrestricted exposure following the completion of all remedial actions for the site.

OSWER Directive 9355.7-02 (Structure and Components of Five-year Reviews, May 23, 1991) provides that U.S. EPA will conduct five-year reviews as a matter of policy (Policy Review) at (1) sites where no hazardous substances will remain above levels that allow unlimited used and unrestricted exposure after completion of the RA, but the cleanup levels specified in the ROD will require five or more years to attain; and (2) sites addressed pre-SARA at which the remedy, upon attainment of cleanup levels, will not allow unlimited use and unrestricted exposure. The five-year review of the Charlevoix Municipal Well Site RA is a Policy Review and was conducted in accordance with part (2) of this directive.

U.S. EPA has established a three-tier approach to conducting five-year reviews, the most basic of which provides a minimum protectiveness evaluation (Level I Review). U.S. EPA determines the level of the review based on site-specific considerations, including the nature of the response action, the status of on-site response activities, and the proximity to populated areas, and sensitive environmental areas. A Level I review was conducted at the Charlevoix Municipal Well Site and consisted of a site visit and a review of all documents and data associated with the RA.

II. Level I Review

A) Historic Monitoring Reports

Groundwater samples have been collected annually from monitoring wells since 1988. Analysis of this sampling has shown a gradual decrease in contamination. Sampling has verified that the two plumes are assimilated into Lake Michigan at levels which are undetectable.

B) Recent Site Visits

The site was most recently visited during August 1994 by EPA and MDNR representatives. The Superintendent of the water system for the City of Charlevoix confirmed that the water treatment plant is operating as intended, and that institutional controls, restricting access to groundwater in the City of Charlevoix, are still in place.

C) Recommendations Based on Level I Review

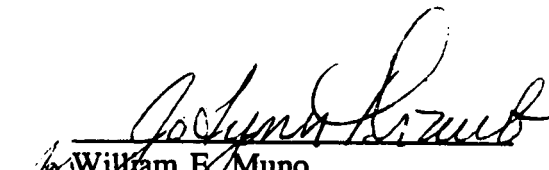
The City of Charlevoix now has a safe, clean, and reliable drinking water supply (with all citizens being served by the water system). Based on the review of the monitoring data, consultation with the MDNR, and site visit, U.S. EPA has determined that all recommendations given in the ROD of September 30, 1985 have been met. The recommendations were as follows:

- 1) Allow the contaminant plumes to discharge under natural flow conditions to Lake Michigan.
- 2) Continue long-term monitoring of the plumes during the natural purging period.
- 3) Institutional restrictions on the installation of private wells in the contaminated aquifer will be enforced by local health officials.

Given the continued implementation of these recommendations and the current understanding of the Charlevoix Municipal Well site, U.S. EPA has determined that no further Superfund response is appropriate in order to provide protection of human health and the environment.

Approved By:

Disapproved By:



William E. Muno
Director
Waste Management Division

9/14/94

Date

William E. Muno
Director
Waste Management Division

Date